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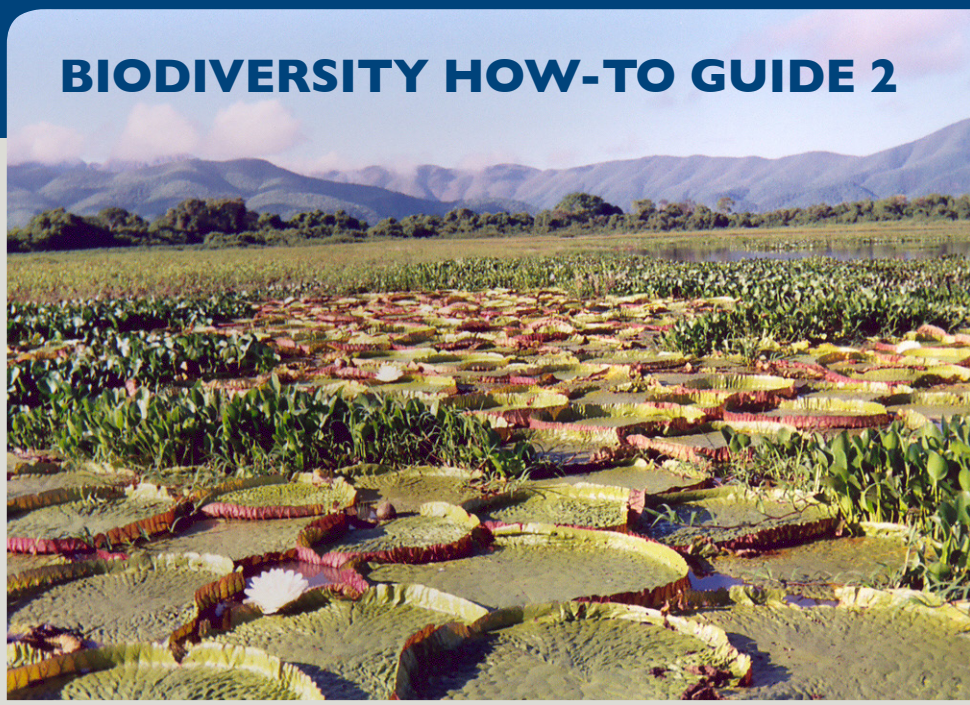
BIODIVERSITY HOW-TO GUIDE 2



Using Results Chains to Depict Theories of Change in USAID Biodiversity Programming

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MEASURING IMPACT

CONTRACT INFORMATION

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Front Cover: (*left*) A Tsimane-Moseten indigenous woman weaving stalks of jatata palm into panels that are then sold for roofing to support the sustainable management of this non-timber forest product as one of a number of income diversifying activities for the economic benefit of the local communities in Northern La Paz, Amazon Basin, Bolivia. Photo credit: Wildlife Conservation Society. ***(upper right)*** Giant waterlily pads in the Pantanal, Bolivia. Photo credit: Marco Flores
(lower right) Landscape assessment, Tanzania. Photo credit: CIFOR

Back Cover: Elephants in the Kavango-Zambezi Transfrontier Conservation Area, one of nine transboundary landscape scale efforts under USAID's Sustainable Conservation Approaches in Priority Ecosystems project.
Photo credit: Mark Atkinson, Wildlife Conservation Society/Botswana

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ACRONYMS

ADS	Automated Directives System
CDCS	Country Development Cooperation Strategy
E3	Bureau for Economic Growth, Education, and Environment
FAB	Office of Forestry and Biodiversity
PAD	Project Appraisal Document
USAID	United States Agency for International Development

I. OVERVIEW

Biodiversity plays a central role in influencing multiple development sectors, including economic growth, food security, health, governance, and climate change. To this end, the United States Agency for International Development (USAID) has invested heavily in addressing threats to biodiversity in high priority forests, grasslands, coral reefs, and other ecosystems ($250 million in FY 2015). But, historically, USAID's biodiversity programming efforts have not been sufficient for the Agency to be able to document its impact, learn from its efforts, and adapt and improve its work. With this in mind, USAID's Bureau for Economic Growth, Education, and Environment (E3) Office of Forestry and Biodiversity (FAB) is working to develop strong guidance to support program design teams as they develop and manage biodiversity conservation programs within the Program Cycle and in accordance with the USAID Biodiversity Policy.

This Biodiversity How-To Guide is the second in a series of three How-To Guides that provide in-depth guidance on key tools and approaches.

- The first How-To Guide, *Developing Situation Models in USAID Biodiversity Programming*, focuses on how to develop situation models to map out the biodiversity conservation problem context to be addressed.
- This second How-To Guide builds off the situation models guide to help design teams develop results chains that clearly state the expected results and assumptions behind the proposed strategic approaches that make up the program's theory of change.
- The third How-To Guide, *Defining Outcomes and Indicators for Monitoring, Evaluation, and Learning in USAID Biodiversity Programming*, uses the results chains developed here to identify key results for developing outcome statements and performance indicators.

Collectively, the three How-To Guides are designed to help design teams, program managers, and implementing partners systematically approach biodiversity conservation design, planning, monitoring, evaluation, and learning within USAID's Program Cycle, as well as in compliance with the Biodiversity Policy and the updated Biodiveristy Code.[1] While this How-To Guide was written primarily to support the efforts of teams designing biodiversity conservation projects or activities, the products generated are designed to align with and contribute directly to the Intermediate Results and Development Objectives of a Mission's Country Development Cooperation Strategy (CDCS) Results Framework.

While the focus is on biodiversity programming, the concepts, practices, and tools described in these How-To Guides can and have been used in programming of other development sectors as well as integrated (multi-sector) programming. The methodology described through these three How-To Guides is based on the *Open Standards for the Practice of Conservation*, a resource that is widely used in the global conservation community. While it will help USAID staff and implementing partners comply with Program Cycle requirements and Biodiversity Code requirements, the methodology is not itself required, but highly recommended.

This second Biodiversity How-To Guide describes the results chains tool, how to build results chains, and the benefits of developing results chains to support Biodiversity programming. This How-To Guide defines a theory of change as a description of the logical causal relationships among a strategic approach and multiple levels of conditions or results needed to achieve a long-term result or purpose (see Box 1 on page 7 for definitions). A results chain is a graphic representation of a theory of change. It is a type of logical model. Results chains are useful tools for biodiversity program design teams because they help them discuss, refine, and make their programmatic assumptions explicit; measure the effectiveness of their strategic approaches; and develop a common framework for cross-program learning among programs using similar strategic approaches.

[1] USAID has a Biodiversity Code that guides the Agency in determining which programs meet the "direct" programming biodiversity requirement. All USAID programs that use biodiversity funds must comply with all four of the Code's criteria. See USAID Biodiversity Policy.

This How-To Guide breaks down the process of developing results chains to depict theories of change into 13 steps:

Step.1: Define the purpose and sub-purpose(s) statements
Step 2: Select and separate relevant components from the situation model
Step 3: Add key missing drivers (if needed)
Step 4: Brainstorm strategic approaches
Step 5: Prioritize and select draft strategic approaches
Step 6: Select and separate prioritized strategic approach components
Step 7: Convert selected strategic approach components into desired results
Step 8: Rethink results logic and add important missing results
Step 9: Add illustrative actions (as needed)
Step 10: Verify the results chain meets the criteria of a good results chain
Step 11: Link to other strategic approaches to clarify logic (as needed)
Step 12: (Optional) Add critical assumptions and risks
Step 13: Consider whether these are the right strategic approaches

Following these steps will make the process of developing a results chain simple and straightforward, and it will set up design teams, program managers, and implementing partners to be able to monitor, evaluate, and learn from their efforts – in other words, practice good adaptive management. Along these lines, this How-To Guide also details why results chains are useful, drawing on real-world situations to help USAID program design teams, managers, and implementing partners understand more clearly how they might use results chains in their own biodiversity programming.

II. INTRODUCTION

Every year, USAID invests significant amounts of financial and human resources into programming directed at conserving biodiversity in priority places and integrating biodiversity conservation as an essential component of international development. But, how can the Agency know if that intended biodiversity conservation impact is achieved? Moreover, how can programs learn from and improve strategic approaches? The conservation community has long struggled with these questions. If USAID is going to be successful in its efforts to conserve and protect biodiversity for current and future generations, the Agency needs to better determine these conditions and then direct its scarce financial and human resources to those approaches that will reap the greatest rewards for the investment. Results chains can assist in tackling these challenges by helping design teams articulate strong and clear theories of change, focus and organize efforts, prepare for effective performance monitoring, learn what works and what does not, understand important conditions for success, and practice adaptive management.

Box 1. Clarifying Terms – Development Hypothesis, Theory of Change, Results Chain, and Strategic Approach

*A **development hypothesis** describes the theory of change, logic, and causal relationships among the building blocks needed to achieve or contribute to a long-term result. It is a short narrative that explains the relationships between results upwards from the sub-Intermediate Results, to the Intermediate Results, the Development Objectives, and the CDCS Goal, often through if-then statements that reference the evidence that supports the causal linkages (ADS 201). A CDCS's development hypothesis is also graphically summarized in a logic model known as a Results Framework.*

*ADS 201 defines a **theory of change** as "the reasoning behind how and why a purpose or result is expected to be achieved in a particular context." This How-To Guide expands this definition to include a description of the logical causal relationships among a strategic approach and multiple levels of conditions or preliminary results needed to achieve a long-term result.*

*A **strategic approach** is a set of actions with a common focus that work together to address specific threats, drivers, and/or opportunities in order to achieve a set of relevant results. A good strategic approach should be focused, linked to relevant results needed to achieve long-term programmatic results, feasible in light of available resources and likely constraints, and appropriate for the context within which it will be implemented. Results chains have at least one strategic approach.*

To determine the conditions under which different strategic approaches work, do not work, and why, expectations need to be explicit. With this in mind, the Automated Directives System (ADS) Chapter on Program Cycle Operational Policy (201) requires that USAID managers demonstrate the relationship between planned resource investment and expected results. The CDCS is based upon a sound development hypothesis that "describes the theory of change, logic, and relationships between the building blocks needed to achieve or contribute to a long-term result" (ADS 201). Regarding the project level, ADS 201 states that in the project design phase "the Mission develops a theory of change – a description or illustration of how and why the project purpose is expected to be achieved in the project context." This project theory of change is thus analogous to the development hypothesis at the CDCS level (Box 1).

Similarly, USAID's 2014 Biodiversity Policy identifies the use of theories of change as an important step in the program[2] design process to help teams clarify how they believe a proposed strategic approach will effect change in the problem(s) identified. Moreover, the USAID Biodiversity Code states as two of its four criteria that programming that uses biodiversity funds must "be identified based on an analysis of drivers and threats to biodiversity and a corresponding theory of change" and "must monitor indicators associated with a stated theory of change for biodiversity conservation results."

This Biodiversity How-To Guide describes results chains as a tool that can help design teams, managers, and implementing partners meet Program Cycle and Biodiversity Policy requirements and follow recommendations related to expected results along a Results Framework, whether a Development Objective, Intermediate Result, or sub-Intermediate Results. Results chains help design teams be explicit about expected results, define realistic timeframes, monitor the degree to which they see desired changes, and understand why they have or have not been successful in achieving their expected results. Results chains are logic models[3] that provide a well-defined graphic representations of a theory of change (Box 1).

[2] In this and companion Biodiversity How-To Guides, the term "program" or "programming" is used as a general term to encompass USAID project and activity levels.

[3] According to ADS 201, a logic model is a graphic depiction of a theory of change. Results Frameworks, Logical Frameworks, and results chains are all types of logic models.

This theory of change can be at different levels: strategy, project, or activity. In theory, as part of the process of developing a project's logic model, program design teams should lay out detailed cause-and-effect relationships. However, in practice, many design teams do not clearly lay out all the assumptions[4] behind the project theory of change. This How-To Guide describes how design teams can use results chains to ensure that causal relationships in a project or activity theory of change are clear and explicit. Using the systematic process outlined here can help design teams and other stakeholders answer a call in the Biodiversity Policy to integrate program design, management, and monitoring to test assumptions, learn, and adapt actions, which is the essence of good adaptive management.[5]

At the CDCS level, USAID uses Results Frameworks as the required logic model to outline how USAID, working closely with host country partners and U.S. Government agencies, can best address Mission-identified development challenges and opportunities within the host country or region. This How-To Guide describes how results chains can be used as the logic model of choice for similar purposes at the project for similar purposes at the project and activity design levels.

[4] This How-To Guide uses the general term "assumptions" to refer to the beliefs that a design team has about how a strategic approach will lead to a series of results and, ultimately, to the reduction of key threats and the achievement of biodiversity conservation. In a results chain, these programmatic assumptions are represented by arrows that show how a design team believes one result will lead to the next. The difference between a programmatic assumption and a critical assumption is explained in Box 4 on page 22.

[5] Adaptive management is the purposeful implementation of the Program Cycle by responding to changing circumstances or knowledge during implementation. Adaptive management comes through the systematic, iterative, and planned use of knowledge and learning throughout the implementation of the Program Cycle (USAID Learning Lab).

III. WHAT IS A RESULTS CHAIN?

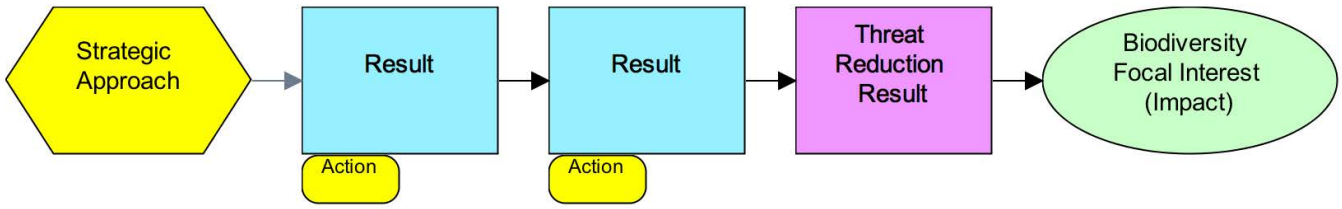
A results chain is a graphic representation of a theory of change. It is a type of logic model that displays the relationships between what a program intends to do and the changes and results it hopes to accomplish to achieve its program purpose (see Box 1 on page 7). For USAID biodiversity conservation programming, a results chain can represent a design team's assumptions about how they think a specific strategic approach or approaches will contribute to reducing important direct threats and lead to the conservation of biodiversity focal interests.

Results chains can be useful to help design teams discuss and refine assumptions, come to a common understanding of what they seek to achieve, and decide how they will portray it; provide a foundation for measuring effectiveness, as the results in a results chain are the units around which design teams develop outcome statements and indicators to measure progress; and provide a common framework for learning across activities, projects, and Operating Units. After explaining how to develop a results chain, this How-To guide will provide more information about each of these benefits. After explaining how to develop a results chain, this How-To Guide will provide more information about each of these benefits.

A single project or activity will typically have multiple strategic approaches and, therefore, multiple results chains that collectively illustrate how a design team believes its efforts will lead to improved biodiversity conservation. As shown in Figure 1, there are five basic components of a results chain:

1. **Biodiversity focal interest (Impact)** – The desired state of the biodiversity focal interest that a program seeks to achieve.
2. **Threat reduction result** – The desired reduction in a specific threat that a program seeks to achieve.
3. **Results** – Preliminary or short-term results needed to achieve a threat reduction result and ultimately the biodiversity focal interest impact.
4. **Strategic approach**[6] – A set of actions with a common focus that work together to achieve a series of results in a results chain.
5. **Selected actions** – Specific interventions or sets of tasks undertaken in order to reach one or more results. An action must be linked to a result.

Figure 1: Basic Components of a Results Chain



Results chains are often (and preferably) derived from situation models. However, they differ in that situation models show the state of the world before the planned program takes action, while a results chain shows the expected state of the world a program is trying to achieve through these actions. Results chains can be important tools to lay out cause-and-effect relationships that are sometimes implicit or incomplete when summarized in other logic models.

USAID requires the use of a logic model for project planning. Project design teams may choose from a range of logic models. Although an activity logic model is not required, it is recommended. ADS 201 states that "in order to ensure that implementing partners have as much information as possible about the project to which an activity contributes, Missions and Washington Operating Units should provide the relevant project's logic model as an attachment to solicitations and/or awards." In addition, USAID "may request that the offeror or applicant provide an activity logic model in their response to a solicitation" (ADS 201). This How-To Guide makes the case for the use of results chains as the logic model of choice to depict theories of change in biodiversity conservation programming.

[6] Each results chain may have one or more strategic approaches that contribute to it. These are represented graphically by a yellow hexagon with an arrow pointing to the corresponding results chain. The strategic approach is made up of several actions that work together to achieve a series of results in a results chain. Although the strategic approach may point to the first result(s) in a chain, the approach itself includes all actions and results achieved by those actions at various points throughout the results chain. In other words the strategic approach yellow hexagon acts like a label or marker that represents the actions within the results chain it is pointing to.

IV. HOW TO DEVELOP AND USE A RESULTS CHAIN

This How-To Guide assumes a situation model has already been developed for a project or activity and that direct threats have been ranked (see *USAID Biodiversity How-To Guide 1: Developing Situation Models in USAID Biodiversity Programming*).

> *Box 2. Software Programs to Design Results Chains*
>
> ***Miradi Adaptive Management Software*** *– This software helps practitioners complete all the design steps, including laying out a situation model.*
>
> ***MS Visio*** *– This diagramming software has features that facilitate creating flow charts, such as situation models.*
>
> ***MS Word or MS PowerPoint*** *– These programs provide basic drawing features that are more time-consuming and less flexible than Miradi or MS Visio.*

Miradi Adaptive Management Software (Box 2) was used to generate the graphic illustrations and figures in this guide. However, as in the case of developing situation models, a design team can use whatever available resources best meet their planning needs. These could include post-it notes, index cards, flip charts, white boards, other software (Box 2), or any other set-up or combination of tools that allows components to be added, deleted, and moved around in a results chain. These manual resources often facilitate more direct and active involvement of design team members than electronic resources. Documenting and sharing the results of these work sessions is a key task which can be efficiently supported with a variety of software options.

BIODIVERSITY HOW-TO GUIDE EXAMPLE: THE GRAND RIVER PROJECT

This How-To Guide uses the fictitious Grand River project example[7] to illustrate how to use results chains. Introduced in the first Biodiversity How-To Guide, this fictitious project is based on real-life conservation contexts. The Grand River project example's purpose links to a fictitious CDCS component – an Intermediate Result on "Biodiversity conservation for improved well-being of targeted rural communities." The situation model developed for the Grand River project example includes (among others) the high-rated direct threat of overfishing, which affects the biodiversity focal interest: river fish populations. This How-To Guide on results chains will focus its examples on this portion of the Grand River Project situation model.

Step 1: Define the Purpose or Sub-Purpose(s) Statements

The first step in developing a results chain is to clarify what the design team ultimately intends to achieve by specifying the desired future state of the biodiversity program scope and each biodiversity focal interest. More specifically, the design team should define in a statement the desired future state of the biodiversity program scope and each biodiversity focal interest. This step may have actually been started during the development of the situation model, when a preliminary project purpose statement was drafted, but now with a better understanding of the context or problem, a more detailed statement can be produced.

In USAID Program Cycle planning, the project purpose can be linked to either the biodiversity program scope or a biodiversity focal interest. If, as is generally the case (and as shown in the Grand River project example), there are multiple biodiversity focal interests, then the design team will set a sub-purpose for each, with the overall purpose being relevant only at the biodiversity program scope level.[8]

Although the (sub) purpose[9] should be directly tied to the biodiversity program scope or biodiversity focal interests, it should use the same language as the relevant Intermediate Result or sub-Intermediate Result in the CDCS Results Framework. The CDCS should have defined (sub) Intermediate Results[10] that make sense for the program context. If this

[7] The Grand River example used in all three How-To Guides is a teaching example and should not be interpreted as an endorsement of any specific thematic or technical decision taken along the course of the example development.

[8] In theory, if the biodiversity program scope is to be addressed as part of a wider "environment project" that contains other non-biodiversity components, then the desired status of the biodiversity program scope would be one of the environment project's sub-purposes.

[9] The term "(sub) purpose" is used in this How-To Guide to refer to a purpose or sub-purpose, depending on the level of planning within a Mission's Results Framework.

[10] Here, the term "(sub) intermediate result" refers to an intermediate result or a sub-intermediate result, depending on the level of planning within a Mission's Results Framework.

is not the case, the design team may have to work with the relevant Mission staff to revisit the (sub) intermediate results and make sure there is direct correspondence between the relevant Project Appraisal Document (PAD) (sub) purpose(s) and the corresponding CDCS component.

Whether a program design team sets a single purpose or multiple sub-purposes, statements should describe the desired future state of the biodiversity program scope and/or biodiversity focal interest(s). Box 3 provides the criteria for a well-written (sub) purpose statement. The USAID Program Cycle guidance does not require design teams to follow these criteria, but it is useful to do so. The criteria help ensure that a design team is explicit about what it ultimately wants and needs to achieve with respect to biodiversity conservation, which is a requirement of the Biodiversity Code. Moreover, a well-defined sub-purpose greatly facilitates the process of further developing the results chain and the selection of monitoring indicators for the biodiversity focal interest(s).

Box 3. Criteria for a Good (Sub) Purpose

A well-written purpose or sub-purpose should meet the following criteria:

- ***Impact-Oriented** – Directly associated with a biodiversity focal interest and describes the desired future status of that focal interest over the long term*
- ***Time-Limited** – Achievable within a specific period of time (generally 10 or more years for a biodiversity context, but PAD design teams should consider a 5-year timeframe compatible with the CDCS)*
- ***Measurable** – Definable in relation to some standard scale (numbers, percentage, fractions, or all/nothing states)*
- ***Specific** – Clearly defined so that all people involved in the project have the same understanding of what the terms in the sub-purpose mean*

Information contained in a viability assessment of biodiversity focal interests (also mentioned in step 2 from Biodiversity How-To Guide 1) can be very helpful in defining the (sub) purposes. A viability assessment defines what constitutes a healthy biodiversity focal interest by addressing the categories of size, condition, and landscape context along with what is necessary within these categories to ensure the integrity or viability of the biodiversity focal interest in the long term. For example, if the biodiversity focal interest is a forest, the viability assessment might describe the area of forest (size), the presence and/or abundance of key forest species (condition), and connectivity to other systems (landscape context). All of these elements are needed for the forest to be ecologically viable. The viability assessment would also describe where the biodiversity focal interest is today in terms of these attributes and where it could be in the future (with a specific date identified). All of this information helps design teams write a good (sub) purpose statement.

If there is no viability assessment available, then design teams can use general concepts to inform the development of a good (sub) purpose. A design team can keep in mind the categories of size, condition, and landscape context to develop an initial draft description of the desired future status of the biodiversity focal interest. It is not necessary to address all the criteria for a good (sub) purpose at this stage.

In the Grand River project example, the design team set a high-level project purpose to address the biodiversity program scope: *Ecological integrity of priority terrestrial and freshwater ecosystems in the Grand River watershed restored for current and future generations*. In this case, the Grand River project example also had specific sub-purposes for each of their biodiversity focal interests. The example design team developed a first draft of the sub-purpose statement for the river fish populations (biodiversity focal interest):

> ***Draft 1**: Healthy river fish populations*

During this step, the example design team worked that statement further into:

> ***Draft 2**: River fish populations preserved across the freshwater ecosystems of the Grand River watershed*

Based on the criteria in Box 3, the design team can assess the draft 2 sub-purpose statement using these questions:

- Is it **linked to a biodiversity focal interest?** Yes, it is linked to the river fish population, which is one of the program's focal interests.
- Is it **impact oriented?** Yes, it states that the design team wants to preserve the fish populations, although as the other criteria reveal, it is not clear what is meant by "preserved."
- Is it **measurable?** No, it is not clear how the design team would measure "preserved." There is no relation to a standard scale.

- Is it **time limited?** No, the sub-purpose does not specify a time period
- Is it **specific?** No, it is not clear what is meant by preserved. It is not clear how many river fish species there are, which ones the design team is focusing on, or what the desired fish population levels of those would be.

To improve their draft 2 sub-purpose statement, the design team would need to make it more measurable, time-limited, and specific. Applying these criteria, the next iteration of the sub-purpose for river fish populations might be:

> ***Draft 3:*** *By 2025, more than 80% of the sub-watersheds of the Grand River have self-sustaining populations of key native river fish.**
> * *See list of identified priority native river fish by sub-watershed.*

Draft 3 is stronger because it is more specific, time-limited, and measurable; it also clearly states how the program managers and implementing partners will measure progress in achieving its sub-purpose (i.e., its indicator). Draft 2 is worded so generally that it is not clear how to measure this sub-purpose or how to know whether it was achieved.

In some cases, a (sub) purpose may include terms that need further definition. As the example program did above, terms that need further definition can be identified with an asterisk and a note, if including this extra detail within the text of the (sub) purpose would make the statement difficult to understand. There may also be some uncertainties when the (sub) purpose is defined. The design team should indicate them in the (sub) purpose statement and describe the plan for providing this additional information as the model is further developed.

The (sub) purpose(s) should not describe how the program intends to reduce a threat. Reducing a threat may be necessary, but not sufficient to conserve the biodiversity focal interest. For example, reducing overfishing is likely to contribute to the conservation of river fish populations, but it may not ensure their overall viability. The (sub) purpose should describe the desired state of the river fish populations themselves.

Step 2: Select and Separate Relevant Components from a Situation Model

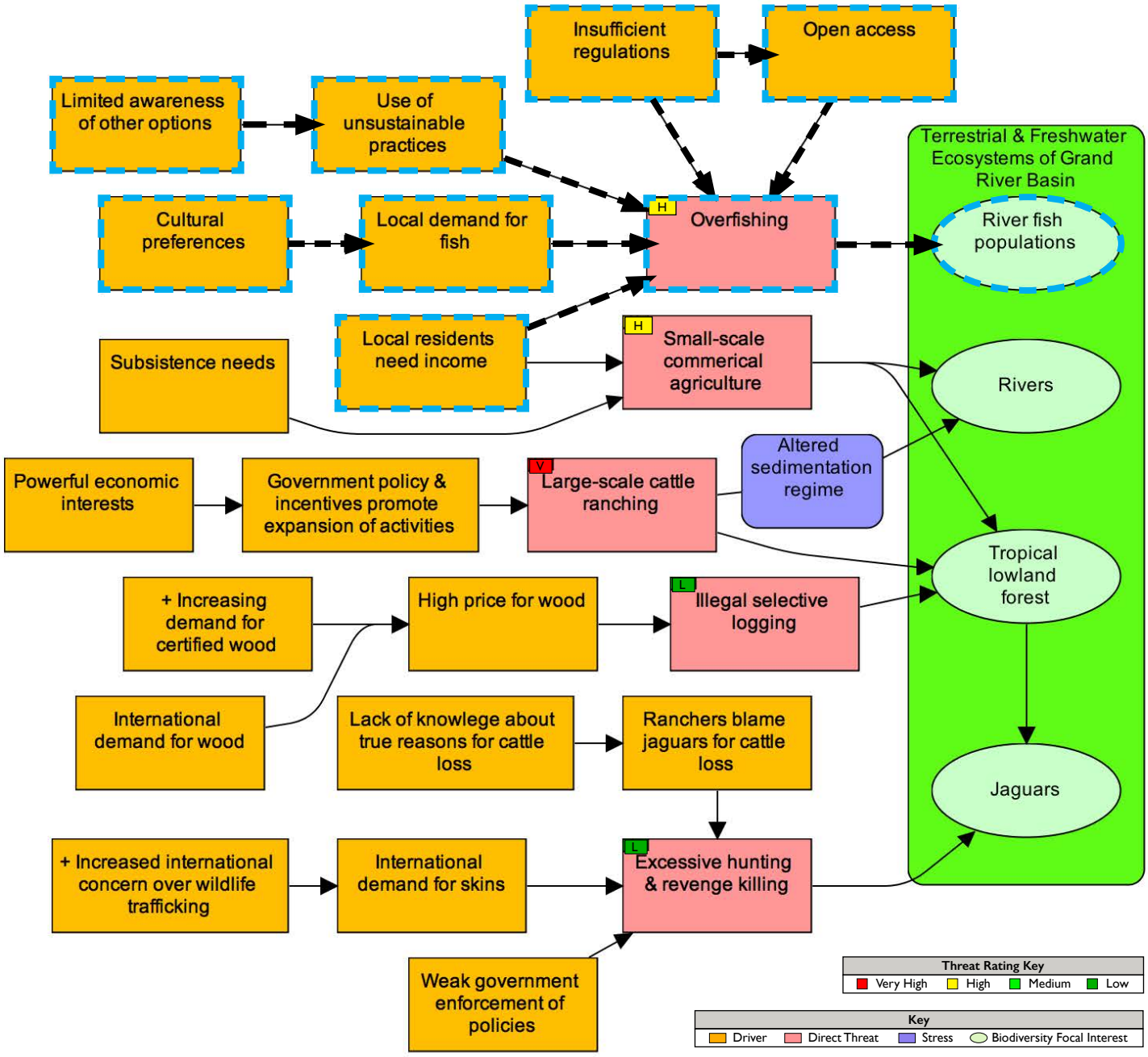
From its situation model, design teams should identify a high priority direct threat that needs to be addressed and its corresponding components (the biodiversity focal interest(s) impacted by the threat and the major drivers linked to the threat). With limited resources design teams should usually choose to address higher-rated threats in order to have the greatest impact with their investments.

By doing this, the design team is essentially separating out one or more "problem chains" that make up the overall situation model. The design team will use these problem chains as the starting point for their results chains. This means a program (project or activity) will likely have multiple results chains. A design team may have multiple results chains for a single threat if it takes different strategic approaches to address that threat, or it may have a single strategic approach that addresses multiple direct threats. Independent of a program's purpose, which may include more than one threat, design teams should prepare as many results chains as needed to address the main direct threats and therefore allow for better decision making as to what is necessary and sufficient to reach the program purpose. However, the design team should be careful to keep the chains manageable.

In the Grand River project example, overfishing was rated as a high threat, so the design team chose to work on it and its contributing drivers (Figure 2 on page 13). If the example design team wanted to brainstorm strategic approaches to conserve tropical forests, it would likely focus on and select drivers contributing to small-scale commercial farming and large-scale ranching because these are high-rated threats affecting tropical forests. The example design team would not choose to work on illegal selective logging because this was a low-rated threat and, therefore, not the best use of the program's limited resources.

Figure 2 does not include the ecosystem services and human well-being interests that the example design team identified when developing their situation model. These are important aspects of the situation, but they are not elements that the example design team will work to change directly. For this reason, the results chains examples used in the three How-To Guides focus on biodiversity focal interests and the factors that are influencing their status (i.e., the direct threats and drivers located to the left in the model).

Figure 2: Grand River Project Example – Situation Model Highlighting Components Related to the Overfishing Direct Threat

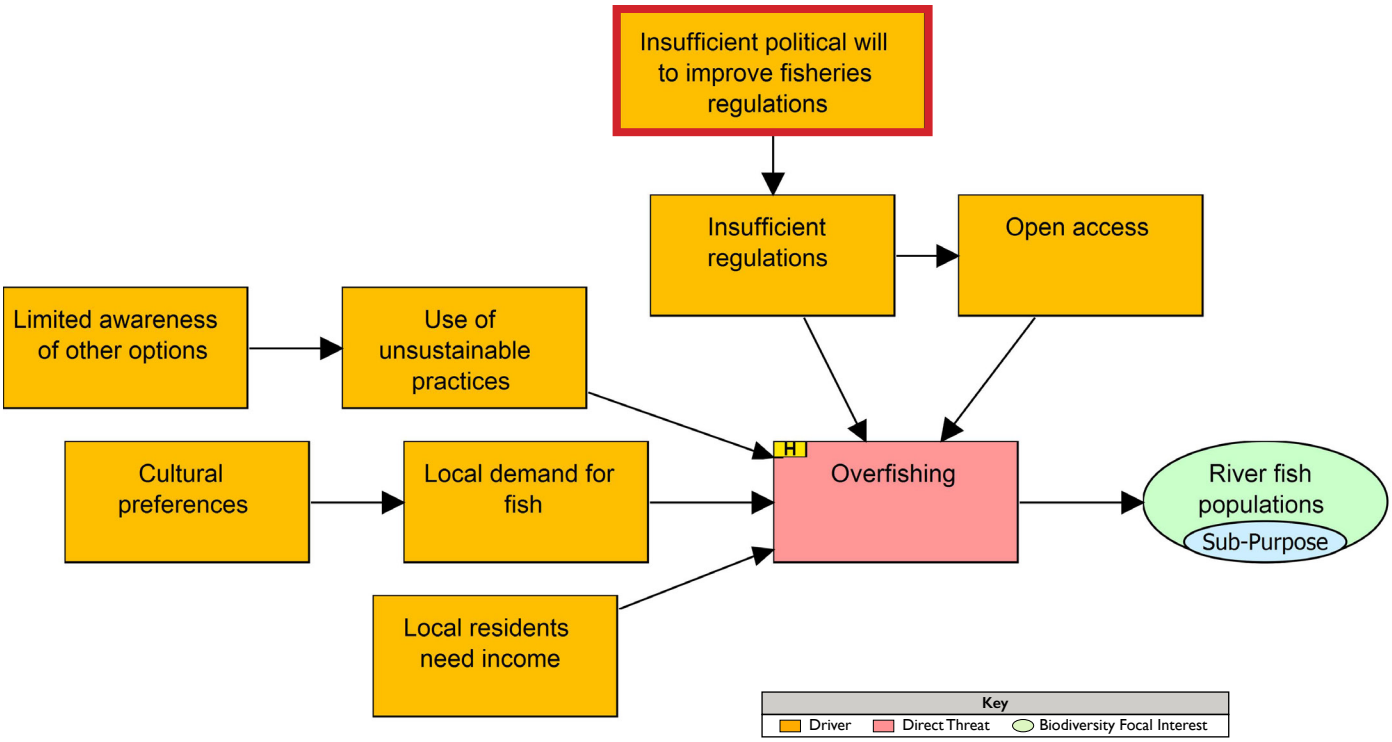


Step 3: Add Key Missing Drivers (if needed)

Once the design team has isolated the drivers, direct threat(s), and biodiversity focal interest(s) from its situation model, it will be able to focus on a more manageable section of the situation model. This ability to focus may prompt the design team to notice that some key drivers are missing. The design team should add these to the isolated problem chain to make sure it is reasonably (but not overly) complete.

In the Grand River project example, the design team felt it was important to clarify why regulations were insufficient, so they added the driver, "insufficient political will to improve fisheries regulations" to their isolated components (box highlighted in red Figure 3).

Figure 3: Grand River Project Example – Overfishing-Related Components Isolated from the Situation Model with Key Additional Driver Added



Step 4: Brainstorm Strategic Approaches

Next, the design team should brainstorm potential strategic approaches that will help address one or more of the factors (threats and drivers) affecting the biodiversity focal interest(s). As in the development of a situation model (See *Biodiversity How-To Guide 1: Developing Situation Models in USAID Biodiversity Programming*), the information used and synthesized during these sessions will depend on a design team's knowledge, experience, and access to additional information to fill evidence gaps that may arise.

Technical experts within and outside of USAID may provide valuable input and/or references as design teams propose strategic approaches. USAID-required and optional assessments and the Biodiversity Handbook are also valuable references. When a design team is brainstorming strategic approaches for a project or activity, it is key not to limit thinking, but rather to try to quickly identify as many ideas as possible. If using index cards on a wall to represent the selected components of the situation model, design team members can write ideas on a different color index card and tape it near the factor with which the idea is most associated.

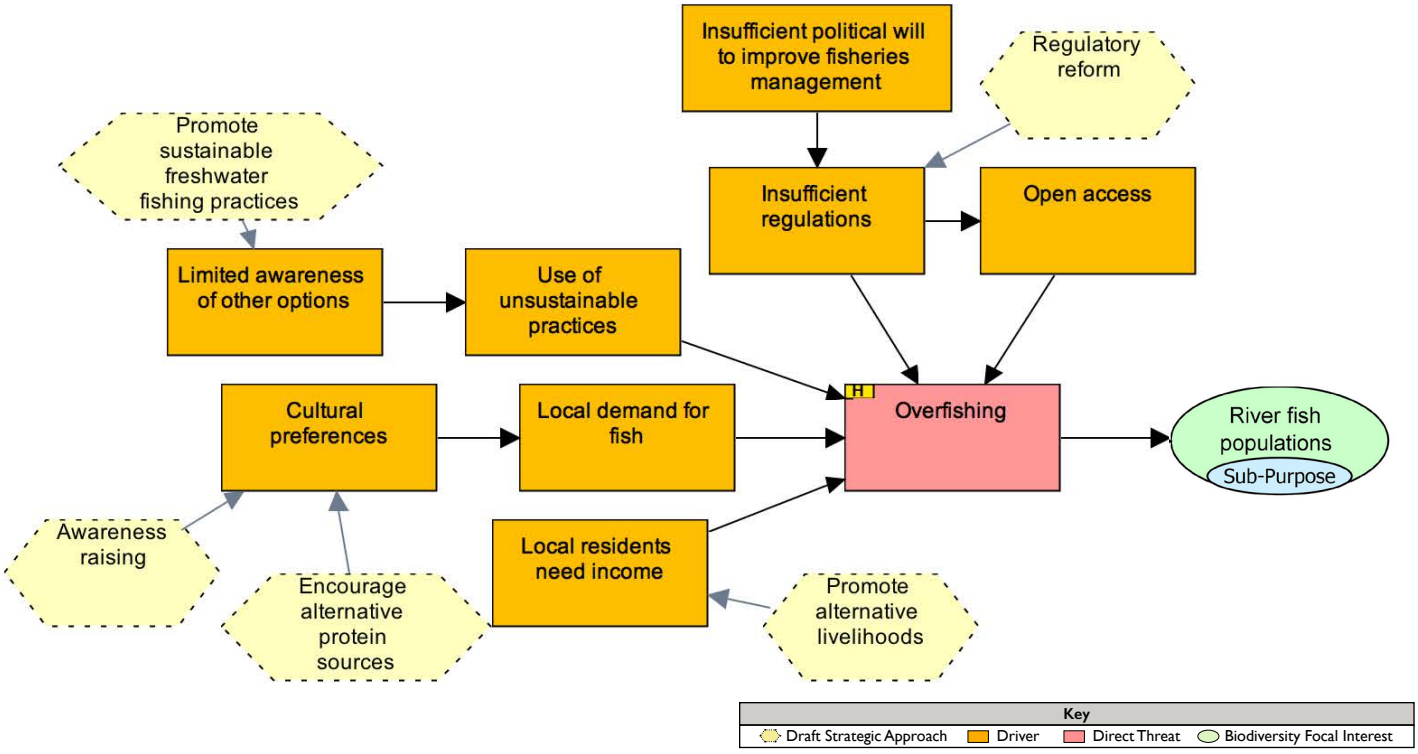
It is common to have a variety of types of ideas proposed; some may be specific actions (e.g., use fish size charts), some more elaborate approaches (e.g., organize fisher associations), and some very general lines of work (e.g., policy reform). A design team will eventually want to have strategic approaches that are at the same level. However, at this point, design teams should encourage participation and generation of different ideas. If a design team only proposes strategic approaches that are ongoing or common or that reflect the expertise of design team members, the ideas may not be what is most needed. During this step, the design team should also revisit any strategic approach ideas that may have emerged when developing the situation model.

When brainstorming, design teams should consider what other actors are already doing. Design teams may have identified some of these ongoing efforts as opportunities when developing their situation model. In many circumstances, if another stakeholder is already implementing a strategic approach and doing it well, the design team may choose to list it as an ongoing approach but not consider it as a potential strategic approach for the program under design. Or the opposite may be the case, and the existence of an ongoing effort may make it attractive for the new program to support.

After identifying a variety of ideas, the design team should start discussing how the proposed strategic approaches relate to one another and, if needed, group, merge, nest, edit, and clarify. This should reduce redundancy and increase clarity. Design teams should also identify information gaps to be filled later or references and experiences that may support potential strategic approaches.

Finally, design teams should link[11] brainstormed potential strategic approaches to the factor they directly affect and document the process and products of this group exercise. Figure 4 shows that the Grand River project example design team brainstormed five potential strategic approaches (represented by yellow hexagons) to influence drivers related to the threat of overfishing.

Figure 4: Grand River Project Example – Brainstorming of Draft Strategic Approaches to Address Overfishing



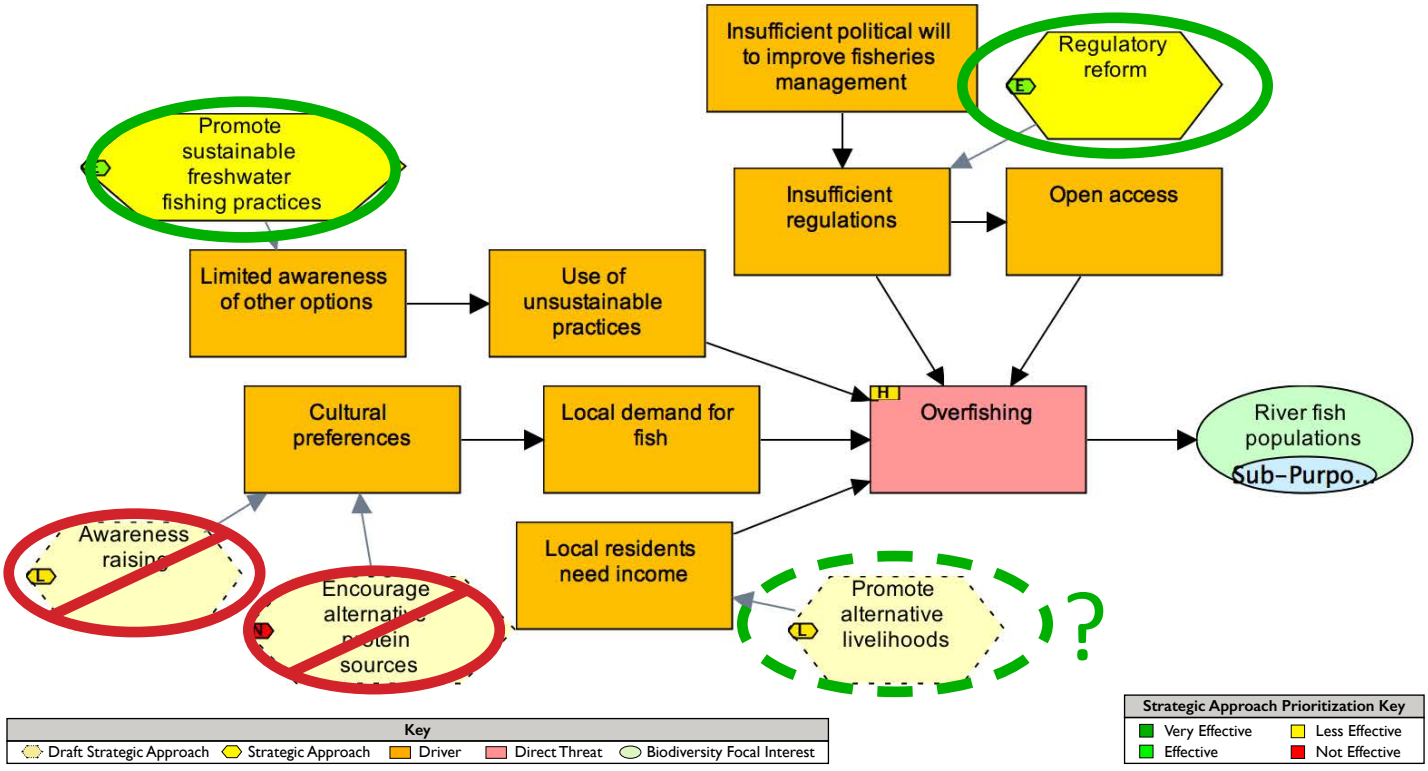
[11] In the figures included in this series of three How-To Guides, the draft and selected strategic approaches hexagons are linked to specific drivers or results (depending on the step of results chain development) by arrows. These arrows appear similar to the ones that link components of a situation model or components of a results chain, and represent causal relationships between components. However, the arrows originating from the strategic approach hexagons represent a slightly different relationship in these diagrams. They indicate that the strategic approach will directly or indirectly act upon all the components connected to the component that the arrow is pointing at. In essence, the strategic approach arrow is pointing at a chain of drivers or results, not just one individual component of such chains. When possible, distinguish strategic approach arrows from the other arrows in these diagrams, with different colors or arrow tips.

After agreeing to the number and variety of proposed strategic approaches, the design team will likely need to prioritize them. Two recommended criteria to use when prioritizing strategic approaches are the potential impact of the strategic approach and its feasibility.[12] However, the design team may want to consider other criteria, such as how well the proposed strategic approaches contribute to CDCS priorities, political feasibility, or the urgency of taking action. Design teams can use an absolute rating (e.g., a 4- or 5-point scale with well-defined categories) or a relative ranking (comparing strategic approaches with one another for each criterion). A relative ranking can be particularly useful to narrow down a list of potential strategic approaches (generally up to 12). It can be challenging to rank strategic approaches when comparing more than 12 options, so a design team may find it useful to use an absolute rating to generate a shorter list and then to conduct a relative ranking exercise on those strategic approaches that remain.

Figure 5 shows that the example design team identified two strategic approaches they will likely implement (promote sustainable fishing practices and develop/influence regulations), two they will not consider, and one about which they are undecided (promote alternative livelihoods). Perhaps the design team's experience has not shown that this last strategic approach is effective or leads systemic changes, but it is something that may help develop goodwill with the community. Or, perhaps promoting alternative livelihoods is a high institutional and or host country priority in the region. It is important for a design team to have discussions about these additional considerations to select strategic approaches that are likely to succeed in the local context.

This is still an initial list of strategic approaches; once a results chain is more fully developed, the design team may adjust its thinking on whether some of the strategic approaches initially proposed are likely to be successful. Also, the strategic approaches in Figure 5 address only one direct threat and biodiversity focal interest from the project level situation model. There may be several direct threats affecting a biodiversity focal interest, and the design team would go through a similar process for each direct threat-focal interest(s) linkages. As such, several strategic approaches may work together to reinforce one another and achieve impact on the biodiversity focal interest.[13]

Figure 5: Grand River Project Example – Prioritization of Draft Strategic Approaches to Address Overfishing



[12] Miradi Adaptive Management Software uses this criteria and a 4-point scale for assessing strategic approaches against these criteria, and provides a summary rating.

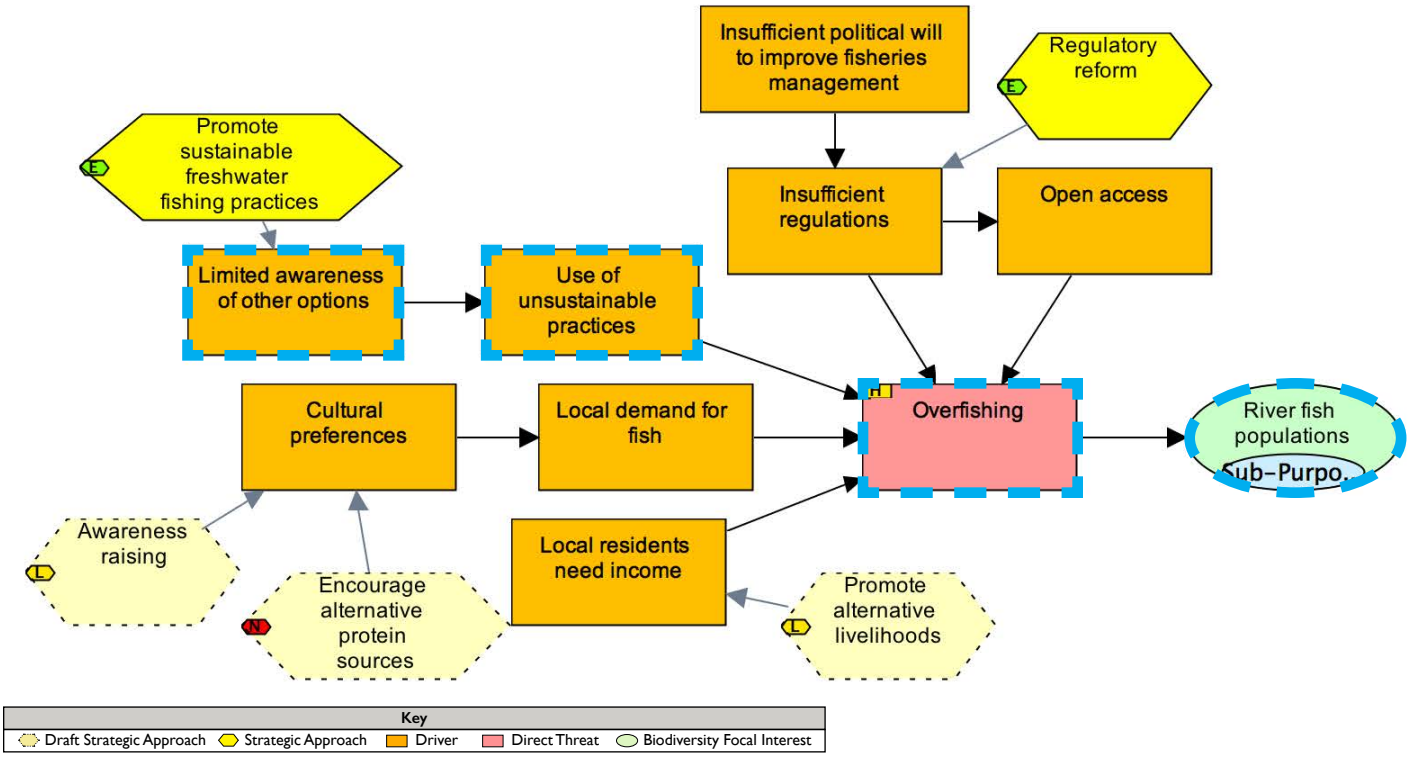
[13] For more information on strategic approach brainstorming and prioritizing, see forthcoming supplemental guidance on Strategic Approach Selection.

Step 6: Select and Separate Prioritized Strategic Approach Components

For each strategic approach taken forward, a design team should select the strategic approach and all components downstream of it (i.e., components the strategic approach is designed to affect). These will form the basis for developing a results chain.

In the Grand River project example, the design team selected the chain of components that included limited awareness of other options, use of unsustainable practices, overfishing, and river fish populations (Figure 6).

Figure 6: Grand River Project Example – Situation Model with Selected Strategic Approach and Chain of Components the Strategic Approach Will Influence



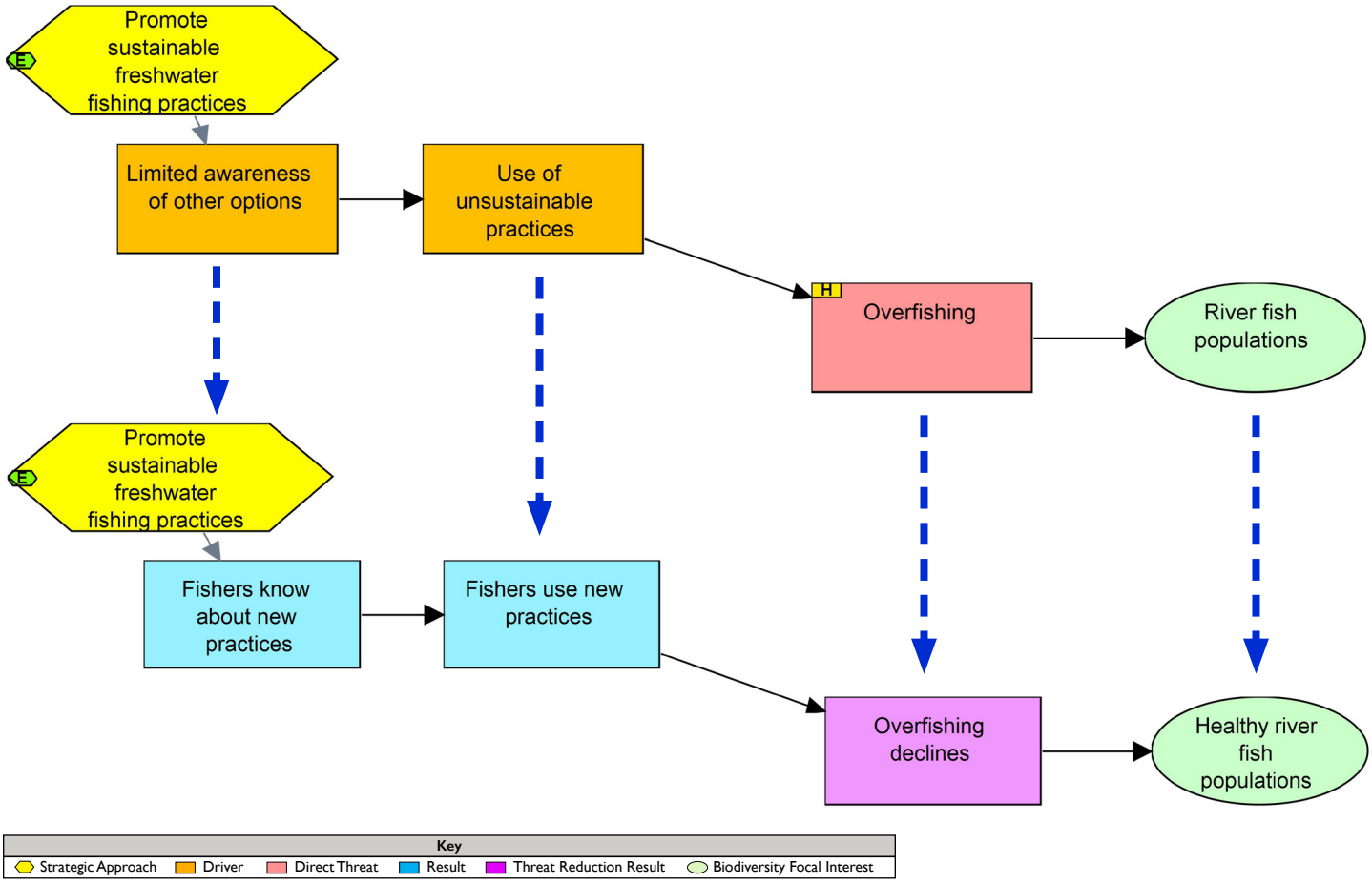
Step 7: Convert Selected Strategic Approach Components into Desired Results

The next step in developing a results chain involves changing the text of the components selected from the situation model into text that describes results that need to be achieved to change the situation. It requires rephrasing the drivers and direct threats from the situation model to results in the results chain (Figure 7 on page 18). This can also be interpreted as converting a "problem chain" into a results chain that is proposing a solution pathway to the problem.

The results in blue boxes from Figure 7 provide the example design team with a starting point of the team's best understanding of what needs to happen for a specific strategic approach (in this case, promoting sustainable freshwater fishing practices) to contribute to reducing the threat of overfishing in order for river fish populations to be healthy. At this point, the design team has its initial draft results chain.

The example design team selected two strategic approaches for the overfishing threat (the second is regulatory reform). To start developing a results chain for its regulatory reform strategic approach (and any other prioritized strategic approach), the design team would follow the same step to convert drivers and direct threats to expected results. For the sake of brevity, this How-To Guide will illustrate how to complete the results chain for only one strategic approach, but knowing that in real cases programs tend to have multiple strategic approaches and corresponding results chains.

Figure 7: Grand River Project Example – Selected Components from a Situation Model Converted into Desired Results



Step 8: Rethink Results Logic and Add Important Missing Results

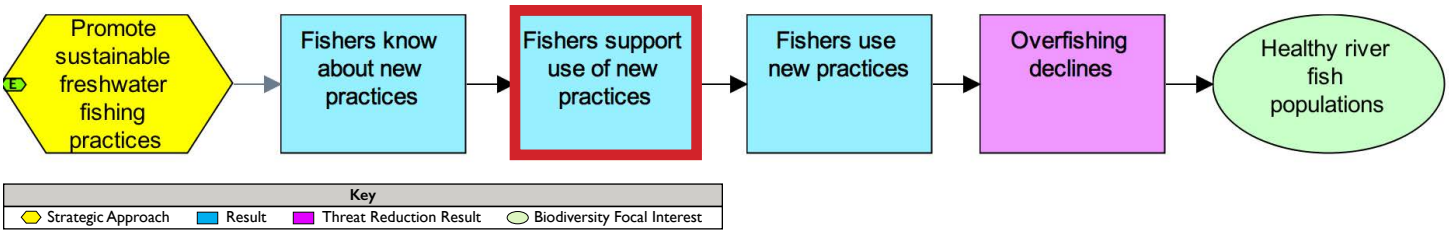
Once a design team converts specific components of a situation model into results, they should ensure they have all the relevant results needed to generate the necessary threat reduction. Design teams should examine results, including sequence and logic, and discuss whether any relevant results are missing. Design teams should ensure that the results they have identified are sufficient to describe the logic underpinning the theory of change and to improve the status of the biodiversity focal interest(s).

If necessary, missing results should be added. At this stage design teams should focus on adding results, not actions. It is important to avoid big "leaps of faith" – when the diagram illustrates a result pointing to another result with one or more significant assumptions missing in between. These leaps of faith should prompt design teams to consider how to make the causal relationship of the chain more explicit by adding results.

Figure 8 on page 19 includes a new result (outlined in red) that the Grand River project example design team added to their set of results in order to clarify the logic and reduce the leap of faith between fishers know about new practices and fishers use new practices.

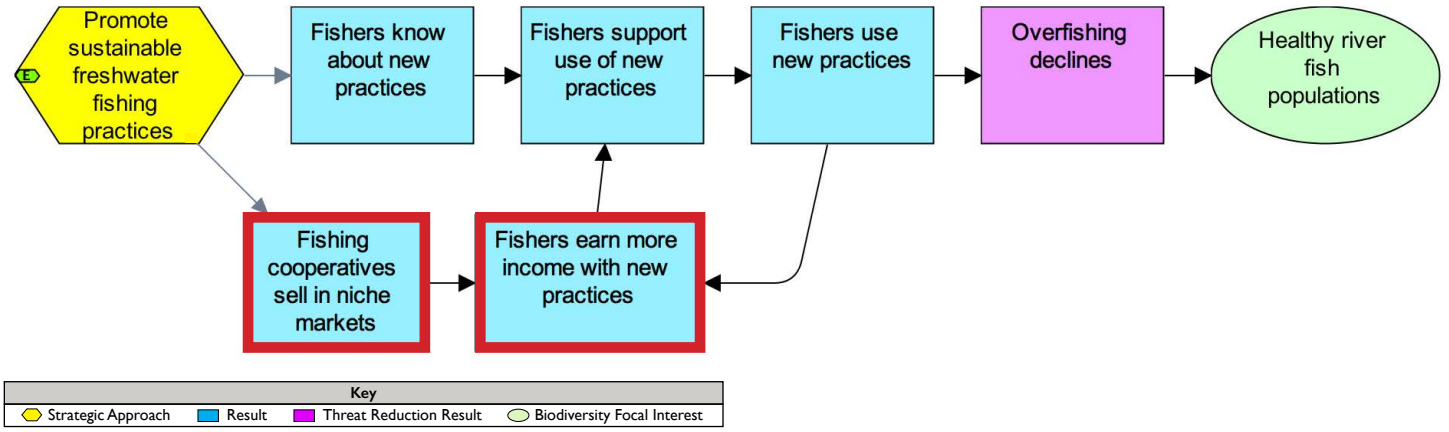
At this stage, some design teams struggle to keep the process focused while being aware of and acknowledging complexity. Disregarding complexity can lead a design team to choose strategic approaches with little chance of success, but adding a great deal of complexity to a results chain can hinder a team's ability to be selective, effective, and pragmatic. It is useful to keep in mind that this is a model and, as the statistician George E. P. Box advised, "All models are wrong, some models are useful." For a model to be useful, it should be informative without being overly complex.

Figure 8: Grand River Project Example – Preliminary Results Chain with Key Missing Result Added



In the Grand River project example, the design team felt that supporting the use of new practices was not sufficient to get fishers to actually use new practices. They felt the new practices would have to be profitable for the fishers. With this in mind, the design team modified the scope of their strategic approach to include an emphasis on marketing and sales and added two new results: fishing cooperatives sell in niche markets and fishers earn more income with new practices (outlined in red in Figure 9). In fact, this second result had a related driver in the situation model (local residents need income), which had not been directly linked to the fishing practices strategic approach. This is a reminder of the importance of regularly revisiting the main situation model throughout the program design process. Note also that the design team added a feedback arrow to their chain to show that the continued use of new practices will contribute to the earlier result, fishers earn more income with new practices.

Figure 9: Grand River Project Example – Preliminary Results Chain with Important Missing Results Added



This step, in which design teams are trying to complete the results chain by adding and properly linking any the additional results necessary to create clear, logical if-then linkages along the chain, can be time-consuming and challenging. There are several different ways to do this:

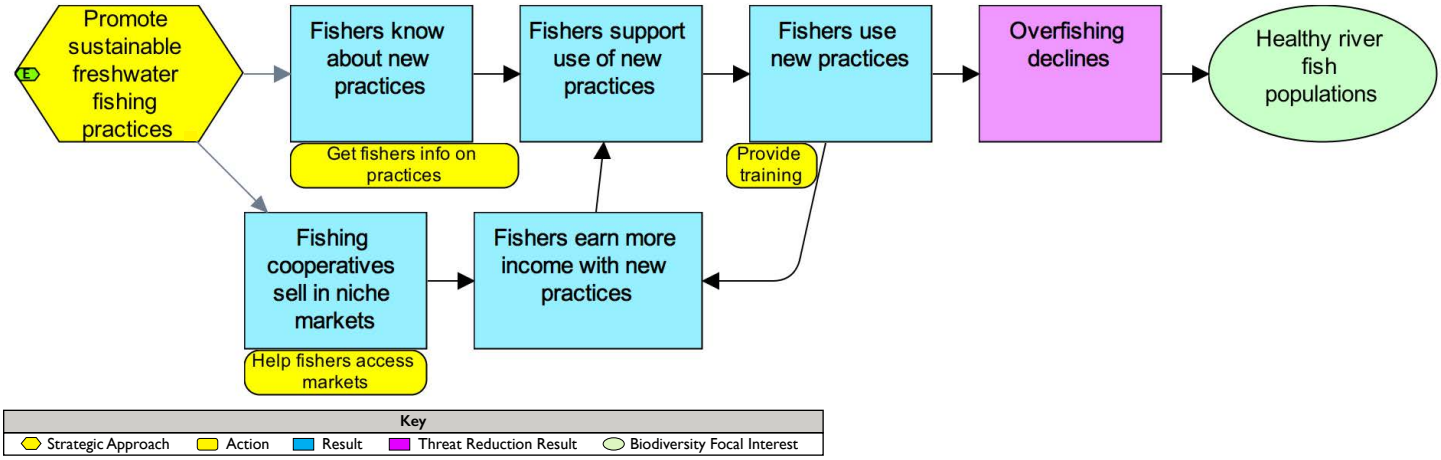
- Work from left to right, asking what the immediate results of the strategic approach should be, what sequential results they will produce, and what additional results are necessary to reduce the direct threat
- Work from right to left, asking what needs to happen to reduce the direct threat, and what results are needed to make that happen
- Brainstorm multiple short-term results and then organize them along the chain, assuring that there are clear and reasonable if-then linkages between each pair of results

In practice, design teams will probably use a combination of these approaches. Linkages should be causal (e.g., an increase in knowledge will cause or contribute to achieving a change in attitudes) and not simply chronological (e.g., the implementer will work to increase knowledge in one pilot site before trying to influence fishers' knowledge across the entire scope).

Many design teams also find it helpful to show specific actions that are part of the strategic approach and that are needed to help achieve a particular result. Another possible reason to include a particular action is that it is part of an ongoing USAID program that the design team wants to highlight. Keeping in mind the utility of a simple diagram, a design team could consider showing only those actions that help clarify the if-then logic of the results chain. An important rule to follow is that each action must be associated with a specific result in the chain.

In Figure 10, the example design team used an action (yellow bubble) on the lower first result to clarify that their broader strategic approach to promote sustainable fishing practices includes specific actions related to helping fishers access niche markets. Likewise, they clarified that they need to get information to fishers in order for them to know about new practices, and they need to provide training to help fishers be able to use new practices.

Figure 10: Grand River Project Example – Results Chain for Sustainable Fishing Practices Strategic Approach



These actions are steps the design team anticipates that the implementing partner will or should take to implement the strategic approach. They, however, are different from the result boxes, which speak to the change in the external world they expect to see as a result of implementation of their strategic approach and its associated actions. If the design team is using manual resources (e.g., cards, post-its, flip-charts), it is helpful to use a combination of color, shape, and/or size to distinguish these "specific actions" from the other components in the results chain.

Developing a results chain. Photo credit: Judy Boshoven

The inclusion of an action in the results chain does not imply that it is the only action needed to implement a strategic approach. A design team may want to include many actions in the diagram, but there is a big cost to doing so. Too many actions in the results chain can make it difficult to follow, and the simplicity and communication value of the chain will be lost. It is important to document the design team's ideas, but not everything has to go onto the diagram.

While select actions can help clarify the chain and avoid leaps of faith, a design team may opt to not include the actions in the diagram and instead organize them by result in some other way (e.g., a complementary table).

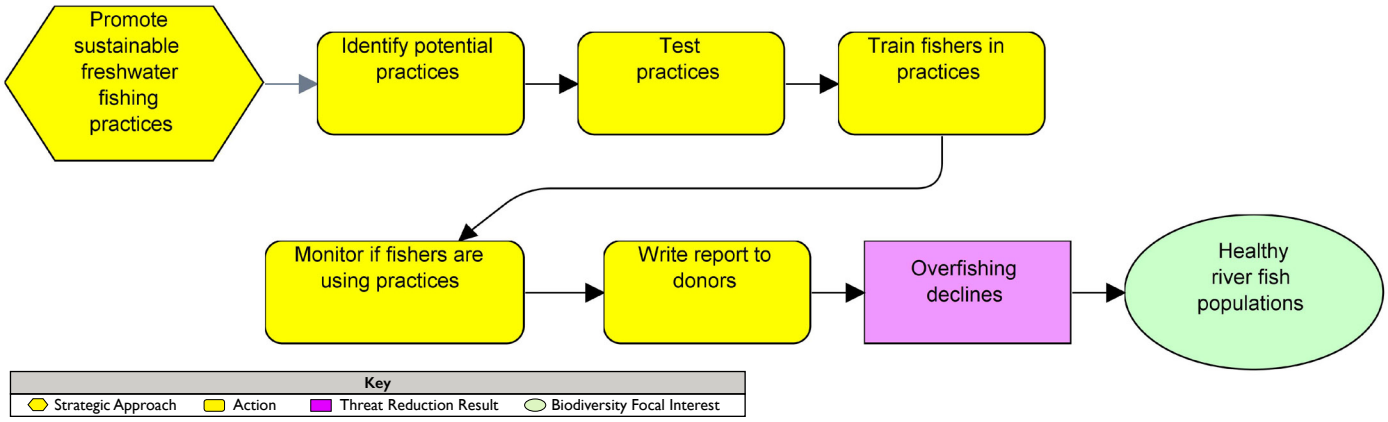
Step 10: Convert Selected Strategic Approach Components into Desired Results

A good results chain should meet the following criteria:

- **Results-oriented:** Boxes contain desired results (e.g., reduction of hunting), not actions (e.g., conduct a study)
- **Causally linked:** There are clear if-then connections between successive boxes
- **Demonstrates change:** Each box describes how the design team hopes the relevant factor will change (e.g., improve, increase, or decrease)
- **Reasonably complete:** There are sufficient boxes to construct logical connections but not so many that the chain becomes overly complex
- **Simple: There is only one result per box**

For this step, the design team should review these criteria and make sure the results chain meets them. In particular, the design team should ensure the results chain is results-oriented. A common mistake with developing results chains is to list all the actions the design team must undertake to implement a strategic approach (Figure 11). This produces an implementation chain, not a results chain. An implementation chain does not show the causal logic that connects a strategic approach to a desired conservation impact. As such, it does not provide the assumptions the program needs to test to know whether a strategic approach is working.

Figure 11: Poor Practice Example – Implementation Chain, Not a Results Chain/Theory of Change



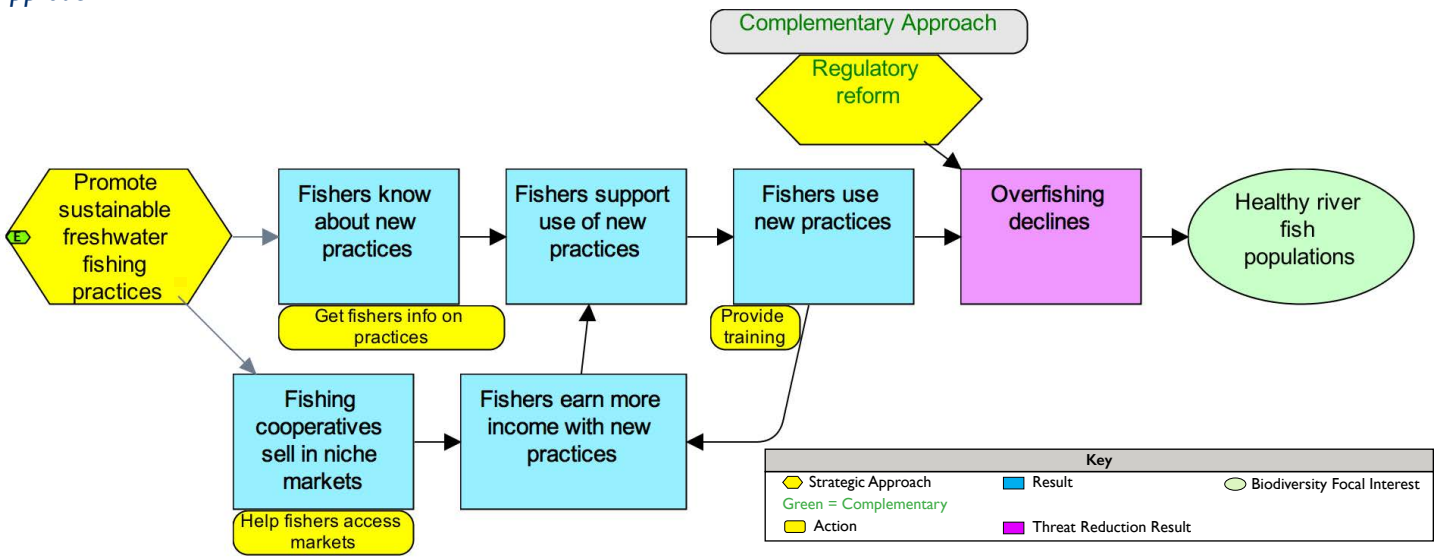
Step 11: Link to Other Strategic Approaches to Clarify Logic (as needed)

The design team may want to show on the results chain how other strategic approaches, either ongoing or planned, will reinforce the expected results from the strategic approach. These complementary strategic approaches can help remind design team members and other stakeholders that the overall program is composed of several strategic approaches that act together to help achieve the needed results.

At the project level, different results chains may represent the activities or mechanisms that make up the project, so it can be a valuable step to illustrate how multiple activities are related to each other in the project context. To keep it simple, design teams can add links (just the yellow hexagons) to strategic approaches that make important contributions to one or more results.

In Figure 12 on page 22, the example design team used green text to add a strategic approach hexagon showing how a separate strategic approach to promote fishing regulatory reform would contribute to achieving the overfishing threat reduction result. Likewise, the sustainable freshwater fishing practices strategic approach may show up as a complementary approach on other results chains for strategic approaches designed to reduce overfishing.

Figure 12: Grand River Project Example – Final Results Chain for Sustainable Fishing Practices with a Complementary Strategic Approach



Step 12: (Optional) Add Critical Assumptions and Risks

The results chain should now outline how the design team thinks a strategic approach will produce results that will contribute to threat reduction and an improvement in the biodiversity focal interest. The process began with a broad situation model, but the design team has been focusing on only a narrow part of the context laid out in that situation model to develop its results chain. Depending on planning requirements and diagram use preferences, it may be useful to take a step back and consider whether there are other "big picture" factors that may influence the degree to which the program can be successful with a particular strategic approach.

Development, including biodiversity conservation, does not happen in a vacuum. So, even a sound results chain may not hold if there are critical assumptions or risk factors beyond a program's control that may impede results. Examples of such critical assumptions or risk factors include corruption, political instability, international markets, and other factors that may be more specific to the context.

While a results chain should not be overly complex, it can sometimes be useful to show these factors. It is also important to consider these critical assumptions when deciding if, when, and how the program managers and implementing partners will proceed with the implementation of their strategic approach(es).

Figure 13 on page 23 illustrates how these critical assumptions and risks are included next to the results chain diagram for the Grand River project example. Critical assumptions are not results and are different from the programmatic assumptions discussed throughout this How-To Guide (see Box 4 for definitions).

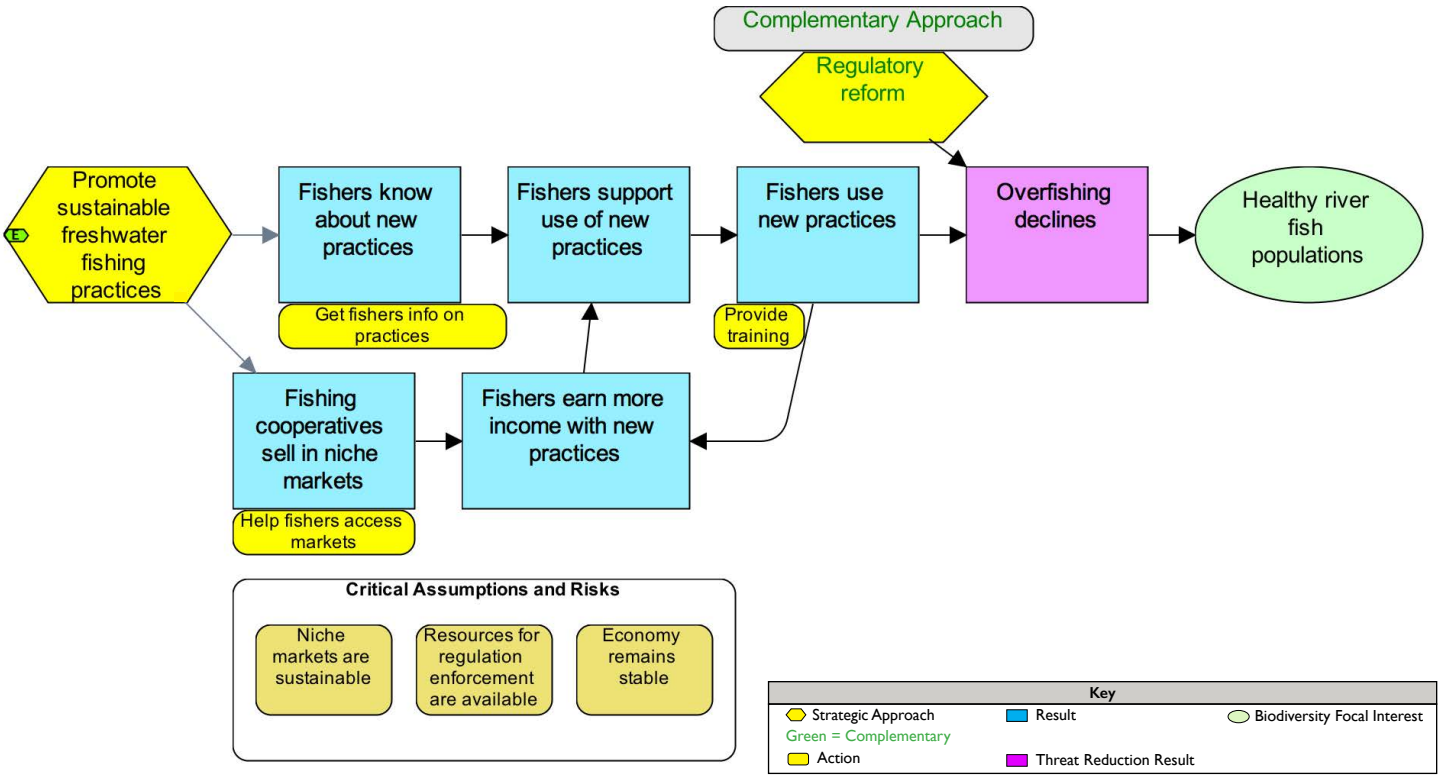
Box 4. Different Types of Assumptions

In USAID programming, the term "assumption" can have a different connotation than the assumptions addressed and clarified in this How-To Guide. Both types of assumptions are important, but it is useful to understand the difference.

***Assumptions** in a results chain refer to the causal (if-then) results a design team assumes will come from implementing a strategic approach. They are directly tied to the project or activity and strategic approach and are represented by arrows in the diagrams. They may also be called programmatic assumptions. For example, "if we implement an awareness campaign, then we assume that our audience will receive the message, and we assume that they will change their attitudes and practices."*

***Critical Assumptions and Risks** refer to the most critical uncertainties and risk factors beyond USAID's influence or control that could affect achievement of the program's planned results. Design teams should identify critical assumptions (ADS 201). For example, a design team may assume the political environment is stable and there will be no widespread ethnic conflict. These are important assumptions that could influence a program's success, but they are not related to the causal results achieved from implementing the program.*

Figure 13: Grand River Project Example – Final Results Chain with Critical Assumptions and Risks



Step 13: Consider Whether These are the Right Strategic Approaches for the Context

Going through the process of developing a results chain helps design teams expose, clarify, and question assumptions. By laying out assumptions through a results chain and identifying critical assumptions that could influence the success of the strategic approach(es), the design team is now in a good position to consider whether it can achieve the specified results.

The design team might want to revisit the situation model and the Mission's CDCS to consider whether the proposed combination of strategic approaches is appropriate, given the context, the potential impact of the strategic approach(es) in other areas, available funding, time, and capacity. The design team may also want to revisit the host country priorities.

V. WHY RESULTS CHAINS ARE USEFUL

Results chains are useful tools for biodiversity conservation teams working at any programmatic stage, scale or within any context (Box 5). Results chains are helpful to biodiversity programming in many ways. For example, they help design teams make strategic approaches explicit; they allow stakeholders to have a common understanding of factors considered and options available before making decisions; and they support coordination between multiple donors, beneficiaries, and implementing partners. As described in greater detail below, results chains can also help design teams, program managers, and implementing partners accomplish accomplish the following:

1. Discuss and clarify the assumptions in a theory of change
2. Measure effectiveness
3. Develop a common framework for cross-program learning

Box 5. Who Should Develop a Results Chain?

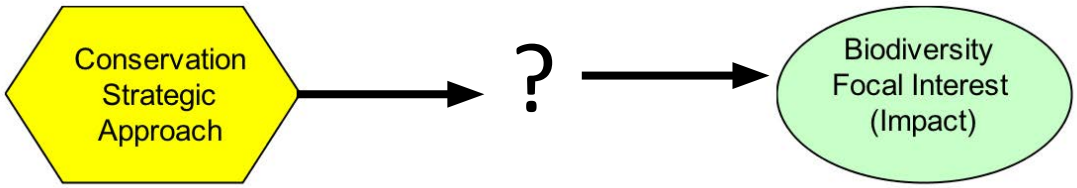
Results chains are useful for anyone implementing strategic approaches at any scale. A ***project design team*** *could develop one or more results chains as their required logic model, and to clarify how strategic approaches it has identified as important are assumed to contribute to desired outcomes and (sub)purpose(s). In doing so, the design team systematically develops the building blocks for its theory of change and identifies key elements to monitor to determine if it is on track. A project design team's results chain(s) should have results also found in the Mission's Results Framework so that the project shows clearly how it contributes to the Mission's CDCS.*

Likewise, ***implementers*** *or* ***managers of an activity*** *could develop results chains for the strategic approaches they implement in order to be clear about what they expect to see and to set up a framework for measuring effectiveness. An activity-level results chain should include results that connect or overlap with the project-level results chains so that it can show how it is contributing to the project's results.*

1. DISCUSS AND CLARIFY ASSUMPTIONS

Biodiversity conservation design teams, program managers, and implementing partners often implement strategic approaches without properly identifying and questioning how they think these approaches will lead to conservation. They may rely on past experience, expert knowledge, or wishful thinking to guide the selection of strategic approaches. Whatever the reason, design teams rarely formally state their assumptions about how they believe their approaches will achieve the desired outcomes and impacts. They likely have many implicit assumptions about how their strategic approaches will contribute to conservation (Figure 14), but it is also common for members from the same team to hold different assumptions that they have not communicated with one another. Because these assumptions are not explicit, the design teams, program managers, and implementing partners cannot come to an agreement on their theory of change or test it and learn over time whether it is valid.

Figure 14: Implicit Assumptions



For example, a forest program team may decide that they will help build community capacity for forest resource management in order to decrease illegal logging in indigenous communities and conserve the state of primary forest in those communities. The forest program team should ask themselves why they think this will happen. They may assume that stronger community capacity will increase community knowledge about their rights, and with these rights, they will exert more control over external actors, including those responsible for the illegal logging. The forest program team may also assume this control will result in more illegal wood confiscated and less illegal logging. It is likely, however, that they have not made their assumptions explicit – and that they are not monitoring them. As such, they have little chance of systematically testing whether their actions are contributing to less illegal logging and the conservation of primary forest.

If, however, the forest program team members make their assumptions explicit using a results chain, then they can debate their theory internally, as well as externally, with those stakeholders and advisors who have not been members of the design team. They can see if the results they expected actually materialize. They can also look outside of their results chain to see if other external factors might be influencing the degree to which they are achieving their expected results.

Figure 15: Community Capacity Building Example – Results Chain for Forest Resource Management

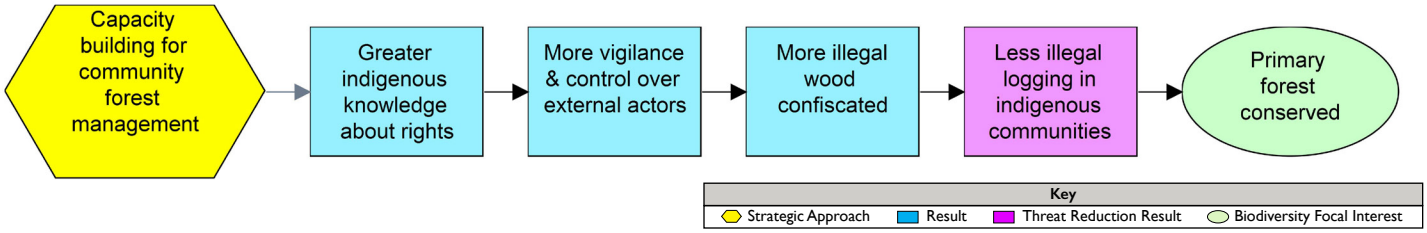


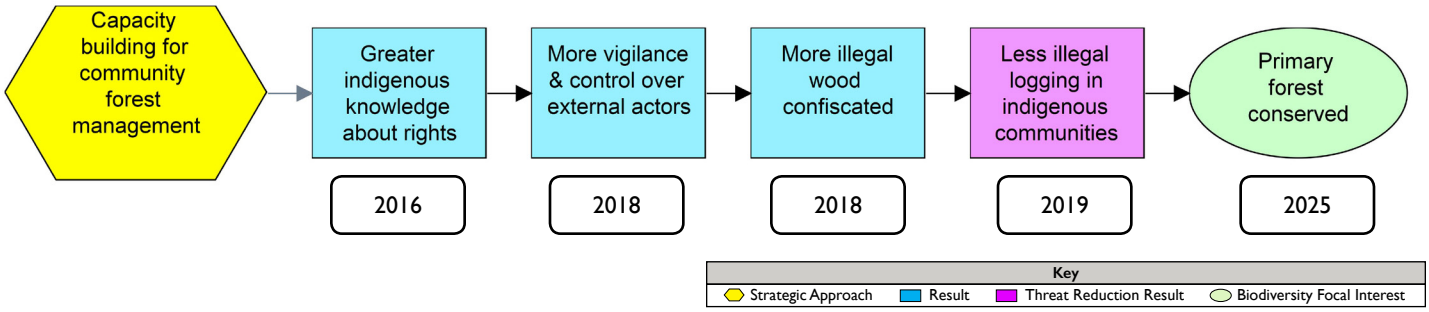
Figure 15 illustrates how the forest program team made their assumptions explicit for their community capacity building strategic approach. A close look at this chain reveals many points at which this team's logic could break down. If the community has greater knowledge about its rights, it does not mean they will take the next step and exert more control over illegal loggers. Perhaps there are security concerns that would prevent them from taking action. Or maybe they are able to reduce the amount of illegal selective logging that happens, but the government has just designated a block of forest for clear cutting. As a result, the primary forest would still not be conserved. This new knowledge may prompt the team to revise their results chain to take into consideration these other influences, or it may prompt the team to modify or abandon this strategic approach because it is not likely to be successful under the current conditions. Often, a good results chain will have been modified several times as a team refines its program design.

2. MEASURE EFFECTIVENESS AND ADJUST STRATEGIC APPROACHES

Once a design team has agreed on their results chain, they can use the specified results to help develop important components for their PAD, logical framework, and/or Monitoring, Evaluation, and Learning Plan(s). In particular, they can use results chains to define their project or activity key results and their associated outcome statements[14] and indicators needed to measure effectiveness. *Biodiversity How-To Guide 3: Defining Outcomes and Indicators for Monitoring, Evaluation, and Learning* in Biodiversity Programming provides more detail on how design teams can use results chains to do this. The following paragraphs provide a preview to demonstrate the importance of results chains for monitoring, evaluation, and learning.

A design team can use a results chain to clarify the timeframe for expected results (see Figure 16), select key results, and develop outcome statements and associated indicators that are focused and relevant to its theory of change. Thus, a well-designed results chain provides the framework to focus a Monitoring, Evaluation, and Learning Plan on indicators that help program managers and implementing partners determine if their theory of change is accurate.

Figure 16: Community Capacity Building Example – Results Chain for Forest Resource Management with Anticipated Timeframe Included



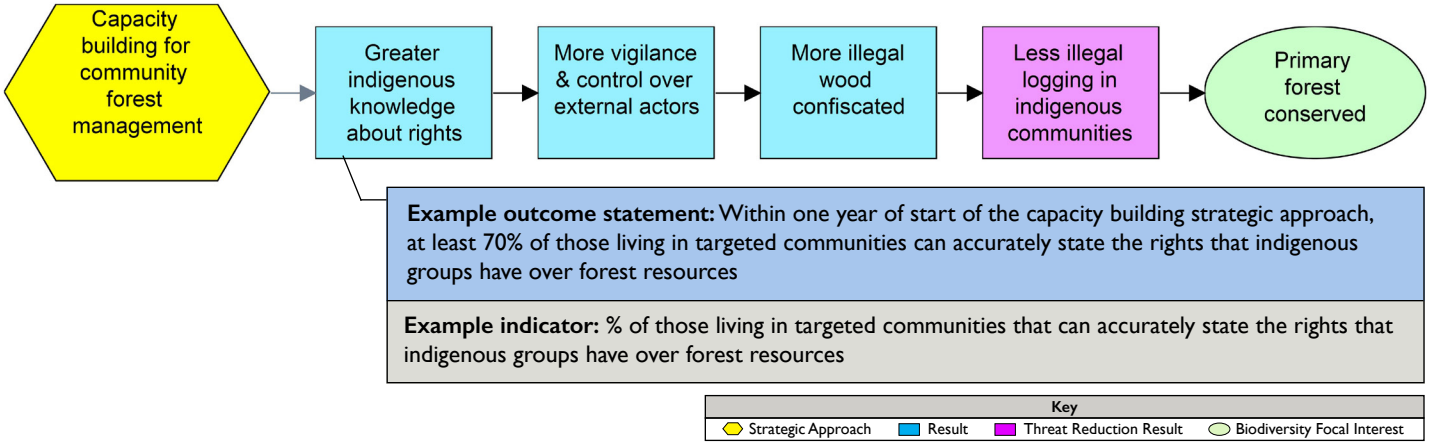
[14] An outcome statement is a formal statement that defines in specific terms what a design team hopes to achieve for key results on the way to achieving the overall purpose or sub-purpose(s). See *Biodiversity How-To Guide 3: Defining Outcomes and Indicators for Monitoring, Evaluation, and Learning in USAID Biodiversity Programming* for more detail on developing outcome statements.

Biodiversity How-To Guide 3 describes how to pick key results within a results chain and how to define specific, measurable, time-bound, and practical outcome statements for them. Determining and justifying a program's key results is an essential task and one where design teams often struggle. It is common for design teams to try to develop outcome statements that are merely shorter-term versions of their program purpose or sub-purposes. Design teams might also brainstorm outcome statements without clearly considering how these fit within their program's theory of change.

Results chains help design teams avoid both of these common errors because they explicitly lay out all the results that a design team should consider for setting outcome statements. Outcome statements should be tied directly to results; therefore, the design team should only develop outcome statements for key results they specify in their theories of change. Results chains help design teams narrow down a huge universe of potential outcome statements to those that will help them determine if their assumptions hold. These key results and/or outcome statements are what the design team would highlight in the program's Implementation Plan and Monitoring, Evaluation, and Learning Plan.

Figure 17 shows a results chain for the community capacity building example in the forest management project. The forest program design team selected "more indigenous knowledge about rights" as a key result and developed an outcome statement for it by specifying who needs to have more knowledge (how many individuals and communities), what knowledge they need to have, and by when. The design team might choose to do this at one or two other carefully selected key results along this chain.

Figure 17: Community Capacity Building Example – Results Chain with Outcome Statement



A clearly defined outcome statement sets the stage for identifying the right indicators to measure whether and to what degree the program achieves this desired change, as shown in Figure 17 and detailed further in *Biodiversity How-To Guide 3*. Selecting key results and establishing outcome statements and indicators for them along the chain help the design team develop the appropriate monitoring or evaluation design to collect data to test their assumptions and learn whether their results chain is valid.

Design teams may develop initial outcome statements without complete information. Even with incomplete information, these statements can be important, as they provide a design team with clarity about what it is trying to achieve, and therefore, what it should measure to see if its assumptions are holding. As part of the adaptive management process, design teams, program managers, and implementing partners should revisit these outcome statements over time and update them and refine them as they gather a deeper understanding of what is needed and how they can best effect change.

Program managers and implementing partners should also revisit their results chains and analyze the degree to which their expected results are occurring and what may be influencing those results, positively or negatively, as part of the adaptive management process. They may find that a strategic approach is not working as they expected, and thus, they need to adapt or even abandon that approach.

3. DEVELOP A COMMON FRAMEWORK FOR CROSS-SITE LEARNING

Finally, results chains, and the theories of change they represent, can help practitioners learn across activities, projects, and CDCS's. Design teams, program managers, and implementing partners working in working in different sites or Missions often implement the same strategic approaches and have common assumptions about how these strategic approaches will contribute to conservation. Theories of change developed using results chains can provide a framework for defining and testing these common assumptions and learning about the conditions under which the strategic approaches are or are not effective, and why.

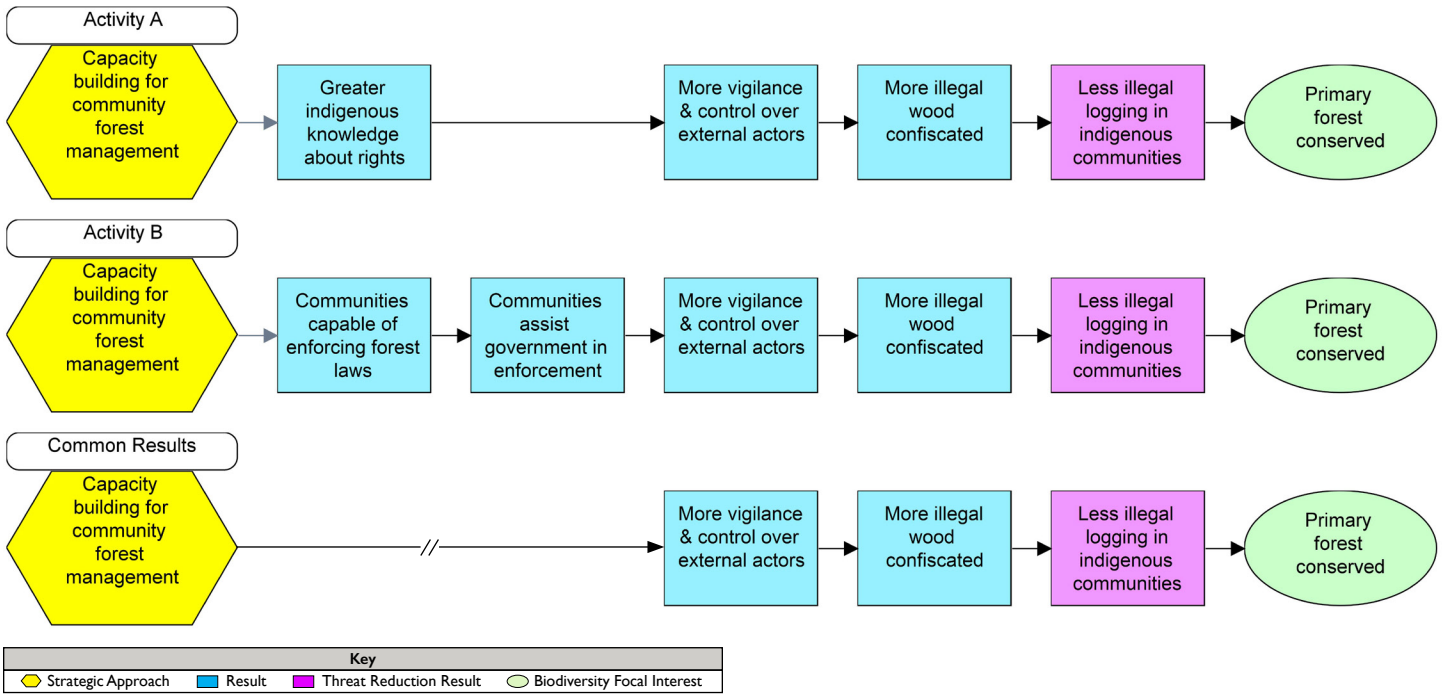
Returning to the forest program example above, two activities operating in different Missions might be using a similar community capacity building strategic approach for forest resource management. They are both ultimately trying to influence the threat of illegal selective logging and ensure the conservation of primary forest (Figure 13 on page 23).

Activity A is using the strategic approach to help indigenous communities understand their legally granted rights and assert these rights. The project or activity team assumes this will lead to greater control over external actors and this, in turn, will help communities confiscate illegal wood, thus reducing illegal selective logging and conserving the primary forest.

Activity B is using the community capacity building strategic approach to train indigenous community members to enforce government-established forestry laws. Trained members would then work directly with government enforcement officials to enforce these laws. As with Activity A, the project or activity team assumes this would lead to more control and vigilance over external actors, more illegal wood confiscated, and less illegal selective logging.

Figure 18 illustrates these two activities operating in different countries with different theories of change, but with many assumptions in common. By explicitly laying out those assumptions in a results chain, they would have a framework for defining and testing the common assumptions and learning about the conditions under which this community capacity building strategic approach is or is not effective in each of those settings, and why.

Figure 18: Community Capacity Building Example – Overlap in Results Chains in Two Activities



VI. CONCLUDING THOUGHTS

USAID staff and implementing partners alike invest significant time, human, and financial resources into biodiversity conservation every year. They want and need to know if the strategic approaches they are implementing, funding, or managing are helping to achieve the desired conservation impact. They also need to understand the conditions under which these strategic approaches work or do not work and why. Results chains are a useful tool for addressing these needs.

Results chains offer much potential, but they are only as good and useful as the information and effort that goes into developing them. As such, they benefit from the input of those with good knowledge of the local circumstances and the strategic approach itself, as well as from evidence from assessments, evaluations, and research literature. Like a situation model, a results chain is a dynamic tool that a design team, program managers, and implementing partners should revisit regularly – in particular to monitor whether they are seeing expected results, but also to update and refine as they learn more about implementing a strategic approach within a program's context. This commitment to reviewing and revising as needed at this and other phases of the Program Cycle is the sign of good learning and adaptive management.

The first two USAID's Biodiversity How-To Guides have provided step-by-step instructions for developing situation models and results chains. *Biodiversity How-To Guide 3: Defining Outcomes and Indicators for Monitoring, Evaluation, and Learning in USAID Biodiversity Programming*, will help with using results chains to develop measurable outcome statements and associated indicators, providing design teams with the foundation for monitoring, evaluation, and learning – and, more broadly, good adaptive management.

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